

ABSTRACT OF THE DISCLOSURE

An automatic speech recognition system includes: a sound source localization module for localizing a sound direction of a speaker based on the acoustic signals detected by the plurality of microphones; a sound source
5 separation module for separating a speech signal of the speaker from the acoustic signals according to the sound direction; an acoustic model memory which stores direction-dependent acoustic models that are adjusted to a plurality of directions at intervals; an acoustic model composition module which composes an acoustic model adjusted to the sound direction, which is
10 localized by the sound source localization module, based on the direction-dependent acoustic models, the acoustic model composition module storing the acoustic model in the acoustic model memory; and a speech recognition module which recognizes the features extracted by a feature extractor as character information using the acoustic model composed by the
15 acoustic model composition module.